

Abarna_day87

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#include <stdio.h>
#include <limits.h>

int min_non_negative_energy(int N, int *A) {
    int dp[N];
    dp[0] = 0;

    for (int i = 1; i < N; i++) {
        dp[i] = INT_MAX;
        for (int j = 0; j < i; j++) {
            int d = i - j + 1;
            int energy = (d * A[j]) - A[i];
            if (energy < 0) energy = 0;
            if (dp[j] + energy < dp[i]) {
                dp[i] = dp[j] + energy;
            }
        }
    }

    return dp[N - 1];
}

int main() {
    int T;
    scanf("%d", &T);

    while (T--) {
        int N;
        scanf("%d", &N);
        int A[N];
        for (int i = 0; i < N; i++) {
            scanf("%d", &A[i]);
        }

        printf("%d\n", min_non_negative_energy(N, A));
    }

    return 0;
}
```